After propensity score matching (181 patients per group), 3-year survival was significantly higher in patients treated with IS.

Conclusions: In a real-world setting of patients admitted with NSTEMI, the use of IS during the initial hospital stay is an independent predictor of improved 3-year survival, regardless of age.

013

Association between inflammatory markers, mean platelet volume and traditional risk factors in patients with documented coronary artery spasm

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Objectives Coronary artery spasm is an important physiopathological mechanism in some forms of myocardial ischemic disease. Increased levels of inflammatory markers and mean platelet volume (MPV) are associated with increased risk thromboembolism, but the relationship between these parameters and coronary artery spasm is unclear.

Methods During coronary angiography, iv methylergometrin was injected to 345 patients with chest pain and normal coronary angiograms to provoke coronary artery spasm. Pts were divided into 2 groups according to results: spasm group (60 pts) and non-spasm group (285 pts). We compared between groups: 1) inflammatory markers including C-reactive protein (CRP), white blood cells (WBC), polymorphonuclear neutrophils (PMN), monocytes (MO), and lymphocytes (LY); 2) hemostasis markers including mean platelet volume (MPV), platelet count, fibrinogen (FIB) and D-Dimers (DD); 3) traditional risk factors for vascular disease, ie. hyperlipidemia, triglycerides (TG), total cholesterol (TC), LDL and HDL cholesterol (LDL-C, HDL-C) and uric acid (UA).

Results Compared with females, more males with chest pain suffered spasm during the provocation test (23.56% vs 11.11%, p<0.05). There was no significant difference in serum levels of LDL-C, HDL-C, TG, TC, LY, MPV and FIB between groups (p>0.05). Serum levels of CRP and blood counts of PMN and MO were signicantly higher in the spasm group (P<0.05). Compared with females, males had a higher frequency of a history of smoking (58.04% vs 46.78%, P<0.05). Logistic regression analysis showed that smoking, PMN and MO counts were significantly and independently associated with coronary artery spasm with odds ratios (OR) of 3.52 (1.79-6.90 95% CI, *P*=0.000), 1.21 (1.07-1.46 95% CI, *P*=0.04) and 5.35 (1.37-21.07 95% CI, *P*=0.01), respectively.

Conclusions Inflammation may contribute to pathogenesis of coronary artery spasm. Smoking, PMN count and MO count appear to be clinical risk factors for coronary artery spasm. Conversely, spasm does not seem to be associated with abnormalities in thrombogenesis.

014

Underuse of recommended secondary preventive therapies in current routine clinical practice

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Aims: Recommendations on the use of antithrombotic agents, antihypertensive drugs and statin for secondary prevention of coronary artery (CAD), ischemic cerebrovacular (CVD), and peripheral arterial (PAD) diseases are now well established. However, there may be a gap between clinical practice and evidence-based guidelines. We aimed to investigate the premorbid use of secondary prevention medications in patients with recurrent cardiovascular events.

Methods and results: We prospectively recorded all patients with CVD and CAD in Dijon, France from 2006 to 2010. Data about medical history and prior use of treatments were collected. Mutivariate analyses were performed to identify predictors of the use of medications in patients with previous cardiovascular disease. Among the 2126 patients included (1270 CVD and 856 CAD), 867 (40.8%) had a history of cardiovascular diseases including 448 (51.7%) with prior CVD only, 191 (22.0%) with prior CAD only, 68 (7.8%) with prior PAD only, and 160 (18.5%) with polyvascular disease. In these patients, 57.3% were on antithrombotic therapy, 61.2% were treated with antihypertensive drugs, 32.9% received statins, and only 23.6% were on an optimal regimen, defined as the combination of the three therapies. Compared with patients with previous CAD only, those with previous CVD only were less likely to be receiving each of these treatments or to receive an optimal regimen (OR=0.17, p<0.001).

Conclusion: This study highlighted the underuse of recommended secondary preventive therapies in current clinical practice. Underuse was particularly pronounced in patients with previous CVD. These findings may account for the burden of recurrent events.

015

Relation between platelet activation and inflammation indexes measured on admission and new onset atrial fibrillation in patients with acute myocardial infarction.

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Objective Platelet activation is present in atrial fibrillation (AF), but there is some debate whether this is due to AF itself and/or to underlying cardiovascular diseases. We aim to determine the association between a marker of platelet reactivity (mean platelet volume (MPV)) and systemic inflammation (CRP) measured on admission, and new onset episode of AF in patients with MI.

Patients and methods Prospective cohort of 4994 consecutive patients with AMI. Patients with paroxysmal or persistent AF were excluded.

Results 426 (8.5%) patients were diagnosed with a new onset of AF during the in-hospital-stay (mean stay 3±2 days). These patients were older (75 vs 65, p<0.001), predominantly male, and prevalence of hypertension and diabetes was greater. Also less smoker were found among this group. Despite similar reperfusion strategies, clinical presentation with heart failure and increased heart rate (HR) was more frequently found in patients with AF. Left ventricular ejection fraction (LVEF) was significantly depressed in AF patients (47 vs. 55, p<0.001), among with increased NT-proBNP, admission MPV (8.9 vs. 8.6, p<0.001) and CRP (10.7 vs 5.7, p<0.001). Backward logistic regression analysis (model 1) found that age [OR=1.04, 95%CI (1.031-1.050), p<0.001)], HR [OR=1.016, 95%CI (1.011-1.021), p<0.001)], LVEF [OR=0.979, 95%CI (0.970-0.987), p<0.001)] and MPV [OR=1.182, 95%CI (1.064-1.312), p<0.001)] were independent predictors of AF occurrence. A second backward regression analysis (model 2= model 1+CRP) found that age [OR=1.036, 95%CI (1.026-1.046), p<0.001)], HR [OR=1.013, 95%CI (1.008-1.018), p<0.001)], LVEF [OR=0.977, 95%CI (0.968-0.987), p<0.001)] and CRP [OR=1.003, 95%CI (1.001-1.005), p=0.006)] were independent predictors of AF occurrence after MI.

Conclusions This study suggested that new onset of AF early after MI is rather linked to inflammation induced by myocardial damage or the existing atherosclerotic burden than platelet activation.

016

Evidence of systemic plaque vulnerability in acute coronary syndromes with FDG-positron emission tomography and computed tomographic angiography in the BIOCORE-2 study

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Purpose: Atherosclerotic plaque vulnerability is a systemic phenomenon and is often associated with severe plaque infiltration with inflammatory cells. 18-Fluoro-deoxyglucose (FDG) accumulates in inflammatory cells of atherosclerotic plaques. The aim of this study was to assess whether 1) FDG uptake in the aorta and carotid arteries measured by positron emission tomography (PET) is higher in patients with acute coronary syndromes (ACS) than in patients with stable coronary artery disease (CAD) and; 2) associated with morphological markers of plaque instability detected with computed tomography angiography (CTA).

Methods: Patients with ACS (n=50) or stable CAD (n=28) underwent a PET 90 minutes after injection of 5 MBq/kg FDG followed by a CTA of the thoracic aorta and carotid arteries. Tissue-to-background ratios (TBRs) were calculated by dividing maximal standard uptake value (SUV) of the arterial wall by the mean SUV of blood. A global TBR was calculated in each patient as the average of the TBRs from the thoracic aorta and the 2 carotid arteries. Atherosclerotic plaques were classified with CTA as non-calcified/mixed/calcified, and smooth/irregular.

Results: Aortic, carotid and global TBRs (mean±SD) were higher in patients with ACS than in patients with stable CAD (1.78±0.19 vs. 1.61±0.18; 1.84±0.35 vs. 1.64 ±0.17; 1.81±0.23 vs. 1.62±0.16; p<0.05 for all). Patients in the highest quartile of global TBR had a higher percentage of non-calcified and irregular plaques in the thoracic aorta and carotid arteries as compared to patients in the lowest quartile of global TBR (cf. Table 1).

Conclusions: FDG uptake in the thoracic aorta and carotid arteries is higher in patients with ACS than in patients with stable CAD and correlates with morphological markers of plaque instability assessed by CTA.

Table 1 – Results

	Total number of plaques	Global TBR values	Patients with ACS	Non calcified	Mixed	Calcified	Smooth	Irregular
First quartile	53	1.36-1.60	32%	30%	45%	25%	100%	0%
Second quartile	70	1.61-1.70	63%	43%	37%	20%	94%	6%
Third quartile	55	1.71-1.81	74%	39%	47%	14%	87%	13%
Forth quartile	58	1.82-2.75	85%	40%	57 %	3%	88%	12%

017*

Echocardiographic factors determining immediate results of percutaneous mitral balloon commissurotomy

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Objectives: Define echocardiographic predictors of the immediateresults of percutaneous mitral balloon commissurotomy (PMC)

Methods : PMC by the Inoue balloon was attempted in 247 patients (mean age: 35 ans, 77% female) with severe mitral valve stenosis. All the patients had undergone echocardiographic examination before PMC to assess mitral anatomy, commissural calcification and to determine the Wilkins score.

Results: the mean value of Wilkins score was 7,98±1,61(range 5-13) and the mean mitral valve area (MVA) before PMC was 1±0,19cm² (range 0,5-1,4cm²). Twenty-nine patients (11,7%) had one-commissural calcification. After PMC, the mean MVA increased to 1,79±0,34cm² (p<0,001) resulting in a success rate of 83%. Severe mitral regurgitation (MR) occured in 5 patients (2%). Wilkins score was an independent predictor of the immediate result of PMC, but if >8, this score had a weak predictive value. Commissural morphology was another independent predictor of the immediate result of PMC.

Conclusion: Echocardiography is now the cornerstone in the assessment of mitral anatomy before PMC and should integrate Wilkins score and commissural morphology for the optimal selection of patients to PMC.

*This abstract refered to topic "Valvular heart disease".

018

Prevalence and impact of cardiovascular risk factors among HIV-infected patients presenting with acute myocardial infarction

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Background: Acute complications of atherosclerosis, such as acute myocardial infarction (AMI) are becoming more common in patients with HIV. But the risk of coronary heart disease in HIV patients is influenced both from traditional risk factors and from specific features of this disease. The aim of the present study was to examine in-hospital case fatality in HIV-infected patients with AMI.

Methods: From the French nationwide hospital medical information database, data for all the consecutive patients hospitalized in the 1546 French hospital/clinics for AMI from 1st January 2005 to 31st December 2009 were analysed. Patients were match according

following parameters: age, gender, type of infarction (ratio 1:2).

Findings: Among the 677 076 patients included, HIV-infected patients (n=1344) accounted for 0.20%. HIV patients were younger, more frequently male and more likely to smoke. Hospital mortality was 4.3% in the HIV-infected group compared with 7.0% in uninfected patients (p <0.0001), but no difference appeared between the 2 groups after matching (3.4% vs. 4.3%; p=0.1334). Based on a Cox regression model, HIV-infection was not an independent predictor of in-hospital mortality in the overall population or after matching. Among none HIV infected patients, dyslipidemia, current smoker, STEMI and coronary angioplasty were independent predictors of in-hospital mortality. In contrast, among HIV infected patients, dyslipidemia [OR-95%IC: 0.356 (0.141-0.903)], renal failure [OR-95%IC: 2.433 (1.174-5.044)] and STEMI [OR-95%IC: 2.130 (1.113-4.076)] were independent factors were associated with in-hospital mortality.

Conclusion: HIV-infected patients have a greater risk of myocardial infarction, but the present study demonstrated than the short-term are similar to non infected patients. Moreover, chronic kidney disease is more common in HIV-infected patients and associated with a worse prognosis. Consequently HIV care increasingly needs to incorporate strategies to manage these non-infectious co-morbidity in primary and secondary prevention.

019

National observational study of diagnostic and interventional cardiac catheterization by the French Society of Cardiology (ONACI): study design and baseline characteristics.

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Background: The national observational study of diagnostic and interventional cardiac catheterization (ONACI) is a prospective multi-center registry of the French Society of Cardiology including all interventional cardiology procedures performed from 2004. We aimed to evaluate "real world" management of patients with coronary artery disease (CAD) in France from this registry.

Methods: The present study is focused on data collected between 2004 and 2008. Patient demographics and co-morbidities, invasive parameters, treatment options, and procedural techniques were prospectively collected. Patients were recruited in 99 hospitals (55% of patients were hospitalized in private clinics, 45% in public institutions).

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